



✓ **Congratulations! You passed!**

TO PASS 70% or higher

Keep Learning

GRADE
100%

Descriptive Measures of Association, Probability, and Data Distributions

LATEST SUBMISSION GRADE

100%

1. Download the file "Datasets.xlsx" Use the data in this file for the remainder of the assignment.

1 / 1 point

Datasets.xlsx

How many rows of data are included in the datasets given?

2000

✓ Correct

2. What is the covariance of Datasets A and B? Round to 2 decimal places.

1 / 1 point

81420.52

✓ Correct

3. Which dataset pair has the highest covariance?

1 / 1 point

- ☐ A & B
- ☐ B & C
- ☒ A & C
- ☐ Cannot be determined with the information given.

✓ Correct

4. Which dataset pair has the strongest relationship?

1 / 1 point

- ☒ A & B
- ☐ B & C
- ☐ A & C
- ☐ Cannot be determined with the information given.

✓ Correct

5. Given that dataset A outcomes always occur before dataset B outcomes (and no other information), can you conclude that A causes B?

1 / 1 point

- ☐ Yes, because all requirements for causation are met.
- ☐ Yes, because covariance and correlation are both positive.
- ☐ No, the variables are not correlated.
- ☒ No, there is no control for external variables.

✓ Correct

6. Create a histogram of Dataset A. Based on the shape of the distribution of outcomes, which of the following is most likely true?

1 / 1 point

- ☐ Higher values are much more likely to occur than lower values.
- ☐ Negative values are much more likely to occur than positive values.
- ☒ All values in the range have a relatively equivalent chance of occurring, with a slightly lower probability on the high end.
- ☐ No information can be used from this dataset.

✓ Correct

7. Create a histogram of Dataset B. Based on the shape of the distribution of outcomes, select the range below that appears to have the highest probability of occurrence.

1 / 1 point

- ☐ -729 to -350
- ☐ -250 to 200
- ☒ 400 to 800
- ☐ 1100 to 1500

✓ Correct

8. Consider 4 sets of data:

1 / 1 point

- set W: set of all real numbers over the range 1 to 100.
- set X: set of all integers over the range 1 to 100.
- set Y: set of all real numbers over the range 1 to 3.
- set Z: set of all whole numbers over the range 1 to 10,000.

Which set has the LEAST numbers?

- ☐ set W
- ☒ set X
- ☐ set Y
- ☐ set Z
- ☐ Cannot be determined from the information given.

✓ Correct
See Lesson 5 - Statistical Distributions

9. Assume that datasets Y and Z have a Covariance of -500. Which of the following do you know to be true? Select all that apply.

1 / 1 point

- ☐ Datasets Y and Z have a strong relationship.
- ☒ Datasets Y and Z have a negative relationship.

✓ Correct
You must select all of the correct answers, and none of the incorrect answers.

- ☒ The results may be affected by the units of measurement.

✓ Correct
You must select all of the correct answers, and none of the incorrect answers.

- ☐ Datasets Y and Z have a causal relationship.

10. Select all the examples of Discrete data below:

1 / 1 point

- ☒ Bees in a behive

✓ Correct
You must select all of the correct answers, and none of the incorrect answers.

- ☐ Honey in a beehive

- ☒ Fish in the sea

✓ Correct
You must select all of the correct answers, and none of the incorrect answers.

- ☐ Voltage level of a battery

- ☐ Your dog's weight

- ☐ Time you wake up in the morning

- ☒ Languages spoken

✓ Correct
You must select all of the correct answers, and none of the incorrect answers.

- ☒ Voters for a particular candidate in an election

✓ Correct
You must select all of the correct answers, and none of the incorrect answers.

- ☐ Cooking oil used in recipe

- ☒ Animals on a farm

✓ Correct
You must select all of the correct answers, and none of the incorrect answers.